



**ENVIRONMENTAL PROTECTION AGENCY**

**6560-50-P**

**40 CFR Part 320**

**[EPA-HQ-OLEM-2019-0087; FRL-10003-10-OLEM]**

**RIN 2050-AH06**

**Financial Responsibility Requirements Under CERCLA Section 108(b) for Facilities in the Petroleum and Coal Products Manufacturing Industry**

**AGENCY: Environmental Protection Agency (EPA).**

**ACTION: Proposed Rule.**

**SUMMARY:** EPA (or the Agency) is proposing to not impose financial responsibility requirements for facilities in the Petroleum and Coal Products Manufacturing industry under Section 108(b) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). Section 108(b) addresses the promulgation of regulations that require classes of facilities to establish and maintain evidence of financial responsibility consistent with the degree and duration of risk associated with the production, transportation, treatment, storage, or disposal of hazardous substances.

**DATES:** Comments must be received on or before [insert date 60 days after date of publication in the Federal Register].

**ADDRESSES:** Submit your comments, identified by Docket ID No. EPA-HQ-OLEM-2019-0087, at <http://www.regulations.gov>. Follow the online instructions for submitting comments.

Once submitted, comments cannot be edited or removed from Regulations.gov. EPA may publish any comment received to its public docket. Do not submit electronically any information you consider to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Multimedia submissions (audio, video, etc.) must be

accompanied by a written comment. The written comment is considered the official comment and should include discussion of all points you wish to make. EPA will generally not consider comments or comment contents located outside of the primary submission (i.e. on the Web, cloud, or other file sharing system). For additional submission methods, the full EPA public comment policy, information about CBI or multimedia submissions, and general guidance on making effective comments, please visit <http://www2.epa.gov/dockets/commenting-epa-dockets>.

**FOR FURTHER INFORMATION CONTACT:** For more information on this document, contact Charlotte Mooney, U.S. Environmental Protection Agency, Office of Resource Conservation and Recovery, Mail Code 5303P, 1200 Pennsylvania Ave., NW., Washington, DC 20460; telephone (703) 308-7025 or (email) [mooney.charlotte@epa.gov](mailto:mooney.charlotte@epa.gov).

**SUPPLEMENTARY INFORMATION:**

**How Can I Get Copies of This Document and Other Related Information?**

This **Federal Register** proposed rule and supporting documentation are available in a docket EPA has established for this action under Docket ID No. EPA-HQ-OLEM-2019-0087. All documents in the docket are listed in the <http://www.regulations.gov> index. Although listed in the index, some information is not publicly available, e.g., Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, will be publicly available only in hard copy. Publicly available docket materials are available either electronically at <http://www.regulations.gov> or in hard copy at EPA/DC, WJC West, Room 3334, 1301 Constitution Ave., NW, Washington, DC 20460. This Docket Facility is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The Docket Facility telephone number is (202) 566-0276. The Public Reading Room is

open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Public Reading Room is (202) 566-1744.

## **Table of Contents**

### **I. Executive Summary**

A. Overview

B. Purpose of This Action

C. Summary of the Major Provisions of the Regulatory Action

D. Costs and Benefits of the Regulatory Action

### **II. Authority**

### **III. Background Information**

A. Overview of Section 108(b) and other CERCLA Provisions

B. History of Section 108(b) Rulemakings

1. 2009 Identification of Priority Classes of Facilities for Development of CERCLA Section 108(b) Financial Responsibility Requirements

2. Additional Classes 2010 Advance Notice of Proposed Rulemaking

3. 2014 Petition for Writ of Mandamus

4. Additional Classes 2017 Notice of Intent to Proceed with Rulemakings

### **IV. Statutory Interpretation**

### **V. Approach to Developing this Proposed Rule**

### **VI. Petroleum and Coal Products Manufacturing Industry Overview**

A. Identification of Petroleum and Coal Products Manufacturing Industry

B. Current Industry Practices

C. Industry Economic Profile

## VII. Discussion of Cleanup Sites Analysis

- A. Cleanup site evaluations
- B. Role of Federal and State Programs and Voluntary Protective Industry Practices at Facilities in the Petroleum and Coal Products Manufacturing Industry
- C. Existing State and Federal Financial Responsibility Programs
- D. Compliance and Enforcement History

## VIII. Decision to Not Propose Requirements

- A. Solicitation of Public Comment on this Proposal

## IX. Statutory and Executive Order Reviews

- A. Executive Order 12866: Regulatory Planning and Review and Executive Order 13563: Improving Regulation and Regulatory Review
- B. Executive Order 13771: Reducing Regulation and Controlling Regulatory Costs
- C. Paperwork Reduction Act (PRA)
- D. Regulatory Flexibility Act (RFA)
- E. Unfunded Mandates Reform Act (UMRA)
- F. Executive Order 13132: Federalism
- G. Executive Order 13175: Consultation and Coordination With Indian Tribal Governments
- H. Executive Order 13045: Protection of Children From Environmental Health and Safety Risks
- I. Executive Order 13211: Actions That Significantly Affect Energy Supply, Distribution, or Use
- J. National Technology Transfer and Advancement Act

K. Executive Order 12898: Federal Actions To Address Environmental Justice in Minority Populations and Low-Income Populations

**I. Executive Summary**

A. *Overview*

Section 108(b) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) directs EPA to develop regulations that require classes of facilities to establish and maintain evidence of financial responsibility consistent with the degree and duration of risk associated with the production, transportation, treatment, storage, or disposal of hazardous substances. The statute further requires that the level of financial responsibility be established to protect against the level of risk the President, in his discretion, believes is appropriate, based on factors including the payment experience of the Hazardous Substance Superfund (Fund). The President's authority under this section for non-transportation-related facilities has been delegated to the EPA Administrator.

This proposal is based on EPA's interpretation of the statute and analysis of its record developed for this rulemaking.<sup>1</sup> EPA has analyzed the need for financial responsibility based on risk of taxpayer funded cleanups at facilities in the Petroleum and Coal Products Manufacturing Industry operating under modern management practices and modern environmental regulations, i.e., the type of facilities to which financial responsibility regulations would apply.

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<sup>1</sup> EPA's interpretation of the statute was upheld by the D.C. Circuit in *Idaho Conservation League v. Wheeler*, No. 18-1141, slip op. at 9-12 (D.C. Cir. July 19, 2019).

That risk is identified by examining the management of hazardous substances at such facilities, as well as by examining Federal and state regulatory controls on that management and Federal and state financial responsibility requirements.

Based on that examination, EPA is proposing that, in the context of CERCLA Section 108(b), the degree and duration of risk associated with the modern production, transportation, treatment, storage or disposal of hazardous substances by the Petroleum and Coal Products Manufacturing Industry does not present a level of risk of taxpayer funded response actions that warrant imposition of financial responsibility requirements for this sector.

In August 2014, the Idaho Conservation League, Earthworks, Sierra Club, Amigos Bravos, Great Basin Resource Watch, and Communities for a Better Environment filed a lawsuit in the U.S. Court of Appeals for the District of Columbia Circuit, seeking a writ of mandamus requiring issuance of CERCLA Section 108(b) financial responsibility rules for the hardrock mining industry, and for the three additional industries identified by EPA in the 2010 Advance Notice of Proposed Rulemaking (ANPRM),<sup>2</sup> that is, Chemical Manufacturing; Petroleum and Coal Products Manufacturing; and Electric Power Generation, Transmission, and Distribution. Following oral arguments, EPA and the petitioners submitted a Joint Motion for an Order on Consent, filed on August 31, 2015, which included a schedule for further administrative proceedings under CERCLA Section 108(b). The court order granting the motion was issued on January 29, 2016. A copy of the order can be found in the docket for this rulemaking.

In addition to requiring EPA to publish a proposed rule on hardrock mining financial requirements by December 1, 2016, the January 2016 Order required EPA to sign for publication

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<sup>2</sup> 75 FR 816 (Jan. 6, 2010).

in the **Federal Register** a determination whether EPA will issue a notice of proposed rulemaking on financial assurance requirements under Section 108(b) in the (a) chemical manufacturing industry; (b) petroleum and coal products manufacturing industry; and (c) electric power generation, transmission, and distribution industry by December 1, 2016. EPA signed the required determination on December 1, 2016; the notice was published on January 11, 2017,<sup>3</sup> and announced EPA's intent to proceed with rulemakings for all three of the classes.

*B. Purpose of This Action*

The purpose of today's action is to propose that financial responsibility requirements under CERCLA Section 108(b) at facilities in the Petroleum and Coal Products Manufacturing industry are not necessary, and to solicit comments on this proposal. EPA has reached this conclusion based on the analyses described in Parts VI and VII of this proposal. The evidence provided in these analyses contributed to EPA's proposed finding that the degree and duration of risk posed by the Petroleum and Coal Products Manufacturing industry does not warrant financial responsibility requirements under CERCLA Section 108(b).

The analysis and proposed finding in this proposal are not applicable to and do not affect, limit, or restrict EPA's authority (1) to take a response action or enforcement action under CERCLA with respect to any facility in the Petroleum and Coal Products Manufacturing industry, including any currently operating facilities or those described in this proposal and in the background documents for this proposal, and (2) to include requirements for financial responsibility as part of such response action. The set of facts in the rulemaking record related to the individual facilities discussed in this proposed rulemaking support the Agency's proposal not

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<sup>3</sup> 82 FR 3512 (Jan. 11, 2017).

to issue financial responsibility requirements under Section 108(b) for this class. At the same time, a different set of facts could demonstrate a need for a CERCLA response action at an individual site. This proposed rulemaking also does not affect the Agency's authority under other authorities that may apply to individual facilities, such as the Clean Air Act (CAA), the Clean Water Act (CWA), the Resource Conservation and Recovery Act (RCRA), and the Toxic Substances Control Act (TSCA).

*C. Summary of the Major Provisions of the Regulatory Action*

EPA is proposing to not require evidence of financial responsibility under CERCLA Section 108(b) at facilities in the Petroleum and Coal Products Manufacturing industry. Thus, there are no proposed regulatory provisions associated with this action.

*D. Costs and Benefits of the Regulatory Action*

EPA is proposing to not require evidence of financial responsibility under CERCLA Section 108(b) at facilities in the Petroleum and Coal Products Manufacturing industry. EPA, therefore, has not conducted a Regulatory Impact Analysis for this action.

**II. Authority**

This proposed rule is issued under the authority of Sections 101, 104, 108 and 115 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended, 42 U.S.C 9601, 9604, 9608 and 9615, and Executive Order 12580 (52 FR 2923, January 29, 1987).

**III. Background Information**

*A. Overview of Section 108(b) and other CERCLA Provisions*

CERCLA, as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA), establishes a comprehensive environmental response and cleanup program. Generally,

CERCLA authorizes EPA<sup>4</sup> to undertake removal or remedial actions in response to any release or threatened release into the environment of “hazardous substances” or, in some circumstances, any other “pollutant or contaminant.” As defined in CERCLA Section 101, removal actions include actions to “prevent, minimize, or mitigate damage to the public health or welfare or to the environment,” and remedial actions are “actions consistent with [a] permanent remedy[.]” Remedial and removal actions are jointly referred to as “response actions.” CERCLA Section 111 authorizes the use of the Hazardous Substance Superfund established under title 26, United States Code, to finance response actions undertaken by EPA. In addition, CERCLA Section 106 gives EPA<sup>5</sup> authority to compel action by liable parties in response to a release or threatened release of a hazardous substance that may pose an “imminent and substantial endangerment” to public health or welfare or the environment.

CERCLA Section 107 imposes liability for response costs on a variety of parties, including certain past owners and operators, current owners and operators, and certain generators, arrangers, and transporters of hazardous substances. Such parties are liable for certain costs and damages, including all costs of removal or remedial action incurred by the Federal Government, so long as the costs incurred are “not inconsistent with the national contingency plan” (the National Oil and Hazardous Substances Pollution Contingency Plan or NCP).<sup>6</sup> Section 107 also imposes liability for natural resource damages and health assessment costs.<sup>7</sup>

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<sup>4</sup> Although Congress conferred the authority for administering CERCLA on the President, most of that authority has since been delegated to EPA. *See* Exec. Order No. 12580, 52 FR 2923 (Jan. 23, 1987). The executive order also delegates to other Federal agencies specified CERCLA response authorities at certain facilities under those agencies’ “jurisdiction, custody or control.”

<sup>5</sup> CERCLA Sections 106 authority is also delegated to other Federal agencies in certain circumstances. *See* Exec. Order No. 13016, 61 FR 45871 (Aug. 28, 1996).

<sup>6</sup> CERCLA Section 107 (a)(4)(A).

<sup>7</sup> CERCLA Section 107 (a)(4)(C) – (D).

Section 108(b) establishes authority to require owners and operators of classes of facilities to establish and maintain evidence of financial responsibility. Section 108(b)(1) directs EPA to develop regulations requiring owners and operators of facilities to establish evidence of financial responsibility “consistent with the degree and duration of risk associated with the production, transportation, treatment, storage, or disposal of hazardous substances.” In turn, Section 108(b)(2) directs that the level of financial responsibility shall be initially established, and, when necessary, adjusted, to protect against the level of risk that EPA in its discretion believes is appropriate based on the payment experience of the Fund, commercial insurers, court settlements and judgments, and voluntary claims satisfaction. Section 108(b)(2) does not, however, preclude EPA from considering other factors in addition to those specifically listed. The statute prohibited promulgation of such regulations before December 1985.

In addition, Section 108(b)(1) provides for publication within three years of the date of enactment of CERCLA of a “priority notice” identifying the classes of facilities for which EPA would first develop financial responsibility requirements. It also directs that priority in the development of requirements shall be accorded to those classes of facilities, owners, and operators that present the highest level of risk of injury.

*B. History of Section 108(b) Rulemakings*

1. 2009 Identification of Priority Classes of Facilities for Development of CERCLA Section 108(b) Financial Responsibility Requirements

On March 11, 2008, Sierra Club, Great Basin Resource Watch, Amigos Bravos, and Idaho Conservation League filed suit in the U.S. District Court for the Northern District of California against then EPA Administrator Stephen Johnson and then Secretary of the U.S. Department of Transportation Mary E. Peters. *Sierra Club, et al. v. Johnson*, No. 08-01409 (N.

D. Cal.). On February 25, 2009, that court ordered EPA to publish the Priority Notice required by CERCLA Section 108(b)(1) later that year. The 2009 Priority Notice and supporting documentation presented the Agency's conclusion that hardrock mining facilities would be the first class of facilities for which EPA would issue CERCLA Section 108(b) requirements.<sup>8</sup> Additionally, the 2009 Priority Notice stated EPA's view that classes of facilities outside of the hardrock mining industry may warrant the development of financial responsibility requirements.<sup>9</sup> The Agency committed to gather and analyze data on additional classes of facilities and to consider them for possible regulation. The court later dismissed the remaining claims.

## 2. Additional Classes 2010 Advance Notice of Proposed Rulemaking

On January 6, 2010, EPA published an Advance Notice of Proposed Rulemaking (ANPRM)<sup>10</sup> in which the Agency identified three additional industrial sectors for the development, as necessary, of proposed Section 108(b) regulation. To develop the list of additional classes for the 2010 ANPRM, EPA used information from the CERCLA National Priorities List (NPL) and analyzed data from the RCRA Biennial Report (BR) and the Toxics Release Inventory (TRI).

EPA specifically requested public comment in the 2010 ANPRM on whether to propose a regulation under CERCLA Section 108(b) for each of the three industries, or any class or classes within those industries, including information demonstrating why such financial responsibility requirements would or would not be appropriate for those particular classes. In addition, the Agency requested information related to the industry categories discussed in the ANPRM,

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<sup>8</sup> 74 FR 37214 (July 28, 2009).

<sup>9</sup> Id. at 37218.

<sup>10</sup> 75 FR 816 (Jan. 6, 2010).

including data on facility operations, information on past and expected future environmental response actions, use of financial responsibility mechanisms by the industry categories, existing financial responsibility requirements, and other information the Agency might consider in setting financial responsibility levels. Finally, EPA requested information from the insurance and financial sectors related to instrument availability and implementation and to potential instrument conditions.<sup>11</sup> Comments received on the ANPRM are summarized in the Additional Classes 2017 Notice of Intent to Proceed with Rulemakings, section III.B.4 below.

### 3. 2014 Petition for Writ of Mandamus

In August 2014, the Idaho Conservation League, Earthworks, Sierra Club, Amigos Bravos, Great Basin Resource Watch, and Communities for a Better Environment filed a new lawsuit in the U.S. Court of Appeals for the District of Columbia Circuit, seeking a writ of mandamus requiring issuance of CERCLA Section 108(b) financial assurance rules for the hardrock mining industry and for three other industries: chemical manufacturing; petroleum and coal products manufacturing; and electric power generation, transmission, and distribution. Thirteen companies and organizations representing business interests in the hardrock mining and other sectors sought to intervene in the case.

Following oral argument, the court issued an Order in May 2015 requiring the parties to submit, among other things, supplemental submissions addressing a schedule for further administrative proceedings under CERCLA Section 108(b). Petitioners and EPA requested an Order from the court with a schedule calling for the Agency to sign a proposed rule for the hardrock mining industry by December 1, 2016, and a final rule by December 1, 2017. The joint

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<sup>11</sup> 75 FR 816, 830-831 (Jan. 6, 2010).

motion also included a requested schedule for the additional industry classes, which called for EPA to sign by December 1, 2016, a determination on whether EPA would issue a notice of proposed rulemaking for classes of facilities in any or all of the other industries, and a schedule for proposed and final rules for the additional industry classes as follows:

EPA will sign for publication in the **Federal Register** a notice of proposed rulemaking in the first additional industry by July 2, 2019, and sign for publication in the **Federal Register** a notice of its final action by December 2, 2020.

EPA will sign for publication in the **Federal Register** a notice of proposed rulemaking in the second additional industry by December 4, 2019, and sign for publication in the **Federal Register** a notice of its final action by December 1, 2021.

EPA will sign for publication in the **Federal Register** a notice of proposed rulemaking in the third additional industry by December 1, 2022, and sign for publication in the **Federal Register** a notice of its final action by December 4, 2024.<sup>12</sup>

While the joint motion identified the three additional industries as the Chemical Manufacturing industry, the Petroleum and Coal Products Manufacturing industry, and the Electric Power Generation, Transmission and Distribution industry, and set a rulemaking schedule, the motion did not indicate which industry would be the first, second or third. The Joint Motion specified that it did not alter the Agency's discretion as provided by CERCLA and administrative law.<sup>13</sup>

On January 29, 2016, the court granted the joint motion and issued an order that mirrored the submitted schedule in substance. The order did not mandate any specific outcome of the

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<sup>12</sup> *In Re: Idaho Conservation League*, No. 14-1149 (D.C. Cir. Jan. 29, 2016) (order granting joint motion).

<sup>13</sup> See Joint Motion at 6 (“Nothing in this Joint Motion should be construed to limit or modify the discretion accorded EPA by CERCLA or the general principles of administrative law”).

rulemakings.<sup>14</sup> The order can be found in the docket for this rulemaking. The signing of this proposed rule by December 4, 2019, will satisfy one component of the order.

#### 4. Additional Classes 2017 Notice of Intent to Proceed with Rulemakings

Consistent with the January 2016 court order, EPA signed on December 1, 2016, a determination regarding rulemakings for the additional classes - a Notice of Intent to Proceed with Rulemakings for all three of the classes. The notice was published in the **Federal Register** on January 11, 2017.<sup>15</sup>

The notice formally announced EPA's intention to move forward with the regulatory process and to publish a notice of proposed rulemaking for classes of facilities within the three industries identified in the 2010 ANPRM. The announcement in the notice was not a determination that requirements were necessary for any or all of the classes of facilities within the three industries, or that EPA would propose such requirements. In addition, the notice gave an overview of some of the comments received on the 2010 ANPRM and initial responses to those comments. The comments on the ANPRM which specifically addressed the need for CERCLA Section 108(b) regulation for the three additional classes fell into four categories: (1) other laws with which the industry complies that obviate the need for CERCLA Section 108(b) regulation; (2) the sources of data that EPA used to select the industries; (3) past versus current practices within each industry; and (4) the overall need for financial responsibility for each industry. In discussing the ANPRM comments in the 2017 notice, the Agency stated its intent to use other, more industry-specific and more current sources of data to identify risk; to consider

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<sup>14</sup> In granting the Joint Motion, the court expressly stated that its Order “merely requires that EPA conduct a rulemaking and then decide whether to promulgate a new rule – the content of which is not in any way dictated by the [Order].” *In re Idaho Conservation League*, at 17 (quoting *Defenders of Wildlife v. Perciasepe*, 714 F.3d 1317, 1324 (D.C. Cir. 2013)).

<sup>15</sup> 82 FR 3512 (Jan. 11, 2017).

site factors that reduce risks, including those that result from compliance with other regulatory requirements; and to develop a regulatory proposal for each rulemaking.

At the time of the 2017 notice, EPA had not identified sufficient evidence to determine that the rulemaking process was not warranted, nor had EPA identified sufficient evidence to establish CERCLA Section 108(b) requirements. The notice described a process to gather and analyze additional information to support the Agency's ultimate decision, including further evaluation of the classes of facilities within the three industry sectors. The notice stated that EPA would decide whether proposing requirements was necessary and, accordingly, that EPA would propose appropriate requirements or would propose not to impose requirements.

5. CERCLA Section 108(b) Proposal for Facilities in the Electric Power Generation, Transmission, and Distribution Industry

On July 29, 2019, EPA published a notice of proposed rulemaking on the first of the three additional industries. In that notice, the Agency proposed to not impose financial responsibility requirements for the Electric Power Generation, Transmission, and Distribution industry and described the analyses and results that were used to reach that decision. The court's January 2016 order requires that a final action on the first additional industry be signed by December 2, 2020.<sup>16</sup>

**IV. Statutory Interpretation**

CERCLA Section 108(b) provides general instructions on how to determine what financial responsibility requirements to impose for a particular class of facility. Section 108(b)(1) directs EPA to develop regulations requiring owners and operators of facilities to

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<sup>16</sup> 84 FR 36535 (Jul. 29, 2019).

establish evidence of financial responsibility “consistent with the degree and duration of risk associated with the production, transportation, treatment, storage, or disposal of hazardous substances.” Section 108(b)(2) directs that the “level of financial responsibility shall be initially established and, when necessary, adjusted to protect against the level of risk” that EPA “believes is appropriate based on the payment experience of the Fund, commercial insurers, court settlements and judgments, and voluntary claims satisfaction.” EPA interprets the risk to be addressed by financial assurance under Section 108(b) to be the risk of the need for taxpayer financed response actions. Read together, the statutory language on determining the degree and duration of risk and on setting the level of financial responsibility confers a significant amount of discretion on EPA.

Section 108(b)(1) directs EPA to evaluate risk from a selected class of facilities, but it does not suggest that a precise calculation of risk is either necessary or feasible. Although the cost of response associated with a particular site can be ascertained only once a response action is required, any financial responsibility requirements imposed under Section 108(b) would be imposed before any such response action was identified. The statute thus necessarily confers on EPA wide latitude to determine, in a Section 108(b) rulemaking proceeding, what degree and duration of risk are presented by the identified class.

Section 108(b)(2) in turn directs that EPA establish the level of financial responsibility that EPA in its discretion believes is appropriate to protect against the risk. This statutory direction does not specify a methodology for the evaluation. Rather, this decision is committed to the discretion of the EPA Administrator. While the statute provides a list of information sources on which EPA is to base its decision—the payment experience of the Superfund, commercial insurers, court settlements and judgments, and voluntary claims satisfaction—the

statute does not indicate that this list of factors is exclusive, nor does it specify how the information from these sources is to be used, such as by indicating how these categories are to be weighted relative to one another.

EPA believes that Sections 108(b)(1) and (b)(2) are sufficiently interrelated that it is appropriate to evaluate the degree and duration of risk under paragraph (b)(1) by considering the factors enumerated in paragraph (b)(2). EPA therefore concludes that Congress intended the risk associated with a particular class of facilities to mean the risk of future Fund-financed cleanup actions in that industry. This reading is supported by the structure of the statute, as Section 108(b) appears between two provisions related to cost recovery. Section 108(a), concerning financial assurance requirements for certain vessels, refers specifically to cleanup costs. And Section 108(c), concerning recovery of costs from guarantors who provide the financial responsibility instruments, refers specifically to liability for cleanup costs. EPA thus reads “risk” in Section 108(b) consistent with its meaning in Sections 108(a) and (c); that is, the risk of Fund-financed cleanup. EPA adopted this interpretation in assessing the need for financial responsibility requirements under CERCLA Section 108(b) for facilities in the first class of facilities it evaluated: the hardrock mining industry.<sup>17</sup> In its opinion deciding the challenge to EPA’s Final Action for the hardrock mining industry, the U.S. Court of Appeals for the District of Columbia Circuit held that EPA’s interpretation -- that the provisions of Section 108(b) “relate only to ensuring against financial risks associated with cleanup costs” -- is reasonable and entitled to deference.<sup>18</sup>

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<sup>17</sup> 83 FR 7556, 7561-62 (Feb. 21, 2018).

<sup>18</sup> *Idaho Conservation League v. Wheeler*, No. 18-1141, slip op. at 12 (D.C. Cir. July 19, 2019).

For the Petroleum and Coal Products Manufacturing industry, EPA has investigated the payment history of the Fund, and enforcement settlements and judgments, to evaluate, in the context of this CERCLA Section 108(b) rulemaking, the risk of a Fund-financed response action at facilities that would be subject to CERCLA financial responsibility requirements. The statute also authorizes EPA to consider the existence of Federal and state regulatory requirements, including any financial responsibility requirements. Section 108(b)(1) directs EPA to promulgate financial responsibility requirements “in addition to those under subtitle C of the Solid Waste Disposal Act and other Federal law.” According to the 1980 Senate Report on legislation that was later enacted as CERCLA, Congress considered it appropriate for EPA to examine those additional requirements when evaluating the degree and duration of risk under what was later enacted as CERCLA Section 108(b):

“The bill requires also that facilities maintain evidence of financial responsibility consistent with the degree and duration of risks associated with the production, transportation, treatment, storage, and disposal of hazardous substances. These requirements are in addition to the financial responsibility requirements promulgated under the authority of Section 3004(6) of the Solid Waste Disposal Act. It is not the intention of the Committee that operators of facilities covered by Section 3004(6) of that Act be subject to two financial responsibility requirements for the same dangers.”<sup>19</sup>

While the Senate Report mentions RCRA Section 3004(6) specifically, it is consistent with congressional intent for EPA to consider other potentially duplicative Federal financial responsibility requirements when examining the “degree and duration of risk” in the context of CERCLA Section 108(b) to determine whether and what financial responsibility requirements are appropriate. It is also consistent with congressional intent for EPA to consider state laws before imposing additional Federal financial responsibility requirements.

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<sup>19</sup> S. Rept. 96–848 (2d Sess, 96th Cong.), at 92.

Consideration of state laws *before* developing financial responsibility regulations is consistent with CERCLA Section 114(d), which prevents states from imposing financial responsibility requirements for liability for releases of the same hazardous substances *after* a facility is regulated under Section 108 of CERCLA. Just as Congress intended to prevent states from imposing duplicative financial assurance requirements after EPA had acted to impose such requirements under Section 108, it is reasonable to also conclude that Congress did not mean for EPA to disrupt existing state programs that are successfully regulating industrial operations to minimize risk, including the risk of taxpayer liability for response actions under CERCLA, and that specifically include appropriate financial assurance requirements under state law. Reviews of both state programs and other Federal programs help to identify whether and at what level there is current risk that is appropriate to address under CERCLA Section 108.

EPA also believes that, when evaluating whether and at what level it is appropriate to require evidence of financial responsibility, EPA should examine information on Petroleum and Coal Products Manufacturing facilities operating under modern conditions. In other words, EPA should assess the types of facilities to which any new financial responsibility regulations would apply. Financial responsibility requirements under Section 108(b) would not apply to legacy operations that are no longer operating. Rather, any requirements would apply to facilities that follow current industry practices and are subject to the modern regulatory framework (i.e., the regulations currently in place that apply to this industry). These modern conditions include state and Federal regulatory requirements and financial responsibility requirements that currently apply to operating facilities. This reading of Section 108(b) is consistent with statements in the legislative history of the statute. The 1980 Senate Report states that the legislative language that became Section 108(b) “requires those engaged in businesses involving hazardous substances to

maintain evidence of financial responsibility commensurate with the risk which they present.”<sup>20</sup>

This approach is also consistent with the analysis that EPA undertook in developing its Final Action on Financial Responsibility Requirements Under CERCLA Section 108(b) for Classes of Facilities in the Hardrock Mining Industry.<sup>21</sup> EPA’s approach was recently upheld by the U.S. Court of Appeals for the District of Columbia Circuit.<sup>22</sup>

This statutory interpretation is reflected in today’s proposal. Any financial responsibility requirements imposed under Section 108(b) would apply to currently operating facilities. EPA thus sought to examine the extent to which hazardous substance management at currently operating Petroleum and Coal Products Manufacturing facilities as a class continues to present risk. Moreover, the statutory direction to identify requirements consistent with identified risks guides EPA’s interpretation that imposition of financial responsibility requirements under Section 108(b) would not be necessary for currently operating facilities that present minimal current risk of a Fund-financed response action. The interpretation in this proposal does not extend to any site-specific determinations of risk made in the context of individual CERCLA site responses. Those decisions will continue to be made in accordance with preexisting procedures.

EPA thus examined records of releases of hazardous substances from facilities operating under a current regulatory framework and data on the actions taken and expenditures incurred in response to such releases. The data collected do not reflect historical practices, many of which would be illegal under current environmental laws and regulations. Instead, EPA has considered current Federal and state regulation of hazardous substance production, transportation, treatment,

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<sup>20</sup> S. Rept. 96–848 (2d Sess, 96th Cong.), at 92.

<sup>21</sup> 83 FR 7556 (Feb. 21, 2018).

<sup>22</sup> *Idaho Conservation League v. Wheeler*, No. 18-1141 (D.C. Cir. July 19, 2019).

storage, or disposal applicable to facilities in the Petroleum and Coal Products Manufacturing industry.

## **V. Approach to Developing this Proposed Rule**

Based on the statutory interpretation described above, EPA developed an analytical approach to determine whether the current risk under the modern regulatory framework within the Petroleum and Coal Products Manufacturing industry rises to the level that warrants imposition of financial responsibility requirements under CERCLA Section 108(b). Specifically, EPA designed the analytical approach to determine the need for financial responsibility for this industry based on the degree and duration of risk of a Fund-financed response action associated with the industry's production, transportation, treatment, storage, or disposal of hazardous substances.

The approach, described in detail below, looks at risks by examining records of releases of hazardous substances from facilities in the industry in combination with the payment history of the Fund and enforcement settlements and judgments. To enable EPA to base its decision on risk posed by facilities operating under modern conditions, *i.e.*, the types of facilities to which financial responsibility requirements would apply, EPA developed an approach to identify and consider relevant state and Federal regulatory requirements and financial responsibility requirements that currently apply to operating facilities, as well as voluntary protective practices.

EPA sought to determine the level of risk of a Fund-financed response action at current Petroleum and Coal Products Manufacturing operations. Relevant to this decision are requirements of existing regulatory programs and voluntary practices, including existing financial responsibility requirements, which can reduce costs to the taxpayer; EPA's experience with clean-ups in the Petroleum and Coal Products Manufacturing industry; and enforcement

actions, which may reduce the need for Federally-financed response action at facilities in the Petroleum and Coal Products Manufacturing industry.

As part of scoping the Petroleum and Coal Products Manufacturing industry for this proposal, EPA sought to understand general characteristics of the industry that may be relevant to financial responsibility under Section 108(b). To do this, EPA compiled industry features, including the types of activities undertaken and wastes handled or produced. Additionally, EPA looked at the financial condition of the industry to assess the ability of facilities in this class to pay for any environmental obligations they may incur. Discussion of these aspects of the industry is included in section VI of this proposal.

Section VII.A describes EPA's evaluation of cleanup cases at facilities in the Petroleum and Coal Products Manufacturing industry. So-called "cleanup cases" are sites in the Petroleum and Coal Products Manufacturing industry where releases and cleanup actions occurred. To perform this evaluation, EPA developed an analytic approach that considered cleanup cases to identify risk at currently operating facilities and where taxpayer funds were expended for response action. EPA first examined each site to determine the nature and timing of release. EPA used this information to determine if releases occurred under current regulations. As an initial screen, releases that occurred prior to 1980 were deemed to be legacy releases that occurred before the advent of the modern environmental regulatory framework and were therefore screened out of our analysis. Once EPA identified those sites with more recent releases occurring under a modern regulatory framework, EPA then focused on those response actions that were paid for by the taxpayer by looking at those sites with Fund-financed cleanup activity.

As described in section VII.B, to understand the modern regulatory framework applicable to currently operating facilities within the Petroleum and Coal Products Manufacturing industry,

EPA compiled applicable Federal and state regulations. Specifically, EPA looked to regulations that address the types of releases identified in the cleanup cases. This review also considered industry voluntary programs that could reduce risk of releases. EPA also identified financial responsibility regulations that apply to facilities in the Petroleum and Coal Products Manufacturing industry in section VII.C, and compliance and enforcement history for the relevant regulations in section VII.D.

EPA considered payments from commercial insurers as well, but determined that it was not necessary to conduct a detailed analysis of this potential information source in light of the analyses of cleanup cases and enforcement data. The cleanup cases and enforcement data, in addition to addressing the payment experience of the Fund, court settlements and judgments, and voluntary claims satisfaction, also encompass amounts from commercial insurance payments. For example, at one of the Petroleum and Coal Products Manufacturing sites identified and reviewed, EPA recovered funds from the potentially responsible party's (PRP's) commercial insurers in two separate settlements. Furthermore, payments from commercial insurers may have helped finance the work conducted by PRPs in the cleanup cases identified or may have been included in settlements, judgments, or enforcement cases identified by EPA. However, in the event there were significant payments from commercial insurers associated with facilities in the Petroleum and Coal Products Manufacturing industry that were not already indirectly captured, this information would neither indicate greater risk to the Fund nor suggest a need for financial responsibility requirements under CERCLA Section 108(b).

In considering how to structure its analysis and what data sources to examine, EPA reviewed prior analysis done for selection of industry classes in the 2010 ANPRM and public comments responding to EPA's approach. In the public comment period for the ANPRM, EPA

received a total of 67 comments from 30 commenters on the Chemical Manufacturing industry, Petroleum and Coal Products Manufacturing industry, and the Electric Power Generation, Transmission, and Distribution industry. In addition, EPA received five comments to the hardrock mining proposed rule that were related to the additional classes of facilities.

EPA received comments from the American Petroleum Institute, the National Petrochemical & Refiners Association, and the American Coke and Coal Chemicals Institute, as well as individual refineries. Commenters indicated that EPA should concentrate on current practices and not legacy contamination. Commenters also said that EPA should not impose financial responsibility requirements on facilities that are already subject to other Federal laws. One commenter stated that EPA should not include waste oil recycling sites, and that oil refineries and coke production facilities should be analyzed independently from each other. Lastly, many commenters believe that EPA placed too much emphasis on TRI data and RCRA BR data and expressed their opinions that these data sources are not designed or intended to provide risk-based information.

In its 2017 Notice of Intent to Proceed with Rulemakings,<sup>23</sup> EPA acknowledged limitations on information that can be gained from TRI and BR data and announced its intention to use industry-specific and current sources of data to identify risk for the purposes of the rulemakings. EPA also analyzed those limitations in the Final Action for the hardrock mining industry.<sup>24</sup> Accordingly, in the analysis conducted to assess risk in the Petroleum and Coal Products Manufacturing industry for this action, EPA chose not to rely on TRI and BR data. While, at the time of the 2010 ANPRM, the Agency found those data sources appropriate for

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<sup>23</sup> 82 FR 3512 (Jan. 11, 2017).

<sup>24</sup> 83 FR 7570 (Feb. 21, 2018).

identifying classes of facilities to examine further, the Agency does not find the data sources valuable for assessing current risk of a Fund-financed response action in the industry.

## **VI. Petroleum and Coal Products Manufacturing Industry Overview**

### *A. Identification of Petroleum and Coal Products Manufacturing Industry*

For this proposal and the associated analyses, EPA reviewed facilities classified under the North American Industry Classification System (NAICS) code 324. The most recent available census data lists the size of the industry at 2,167 establishments nationally.<sup>25</sup> The Petroleum and Coal Products Manufacturing industry is based on the transformation of crude petroleum and coal into usable products. The dominant process, as measured by the value of shipments, is petroleum refining, which involves the separation of crude petroleum into component products through such techniques as cracking and distillation. As of 2018, there were 135 operating petroleum refineries in the U.S. In 2000, there were 155, indicating that at least 20 refineries have closed since the year 2000.<sup>26</sup> In addition, this industry includes establishments that primarily further process refined petroleum and coal products to produce products, such as asphalt, asphalt roofing materials, coke from coal, and petroleum lubricating oils.

### *B. Current Industry Practices*

Operational and decommissioning practices in industrial sectors and their associated firms can ultimately affect the ability of individual firms to responsibly minimize their impact on human health and the environment. To consider the potential for releases as part of its decision making, EPA prepared a high-level review of industry practices and the environmental profile of the Petroleum and Coal Product Manufacturing industry, which includes a summary of relevant

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<sup>25</sup> 2016 Economic Census of the United States, NAICS 324.

<sup>26</sup> *CERCLA 108(b) Economic Sector Profile: Petroleum and Coal Products Manufacturing Industry*

operational and decommissioning materials and wastes in a background document, which is available in the docket for this rulemaking.<sup>27</sup>

Potentially hazardous materials are frequently used in this industry. These materials can include sandblast media, fuels, paints, spent vehicle and equipment fluids (e.g., lubricating oils, hydraulic fluids, battery electrolytes, glycol coolants), among others. Known hazardous materials may include, but are not limited to, asbestos or mercury containing materials, compressed gases, dielectric fluids, boiler bottom ash, and oils. Process fluids can be either hazardous or non-hazardous, and can include oily water, spent solvents, chemical cleaning rinses, cooling water, wash and makeup water, sump and floor discharges, oily water separator fluids, boiler blowdown, and acids.<sup>28</sup> Other materials beyond those listed here may be used in the operation of Petroleum and Coal Product Manufacturing facilities.

Facilities in this industry generate significant amounts of hazardous waste,<sup>29</sup> including but not limited to, primary and secondary sludges, spent catalysts, filter clays and cakes, sour water, heavy ends (distillation bottoms), dissolved air/nitrogen flotation, flotation debris, waste soils, oily sludge, tank bottom sludge, clarified slurry oil, slop oil emulsion solids, spent lime, storm water silt, catalyst and coke fines, and tank bottoms. Additionally, insulating materials (such as asbestos) that are hazardous substances must also be managed properly.

Industry practices in certain subsectors, the Petroleum Refineries (324110), and Other Petroleum and Coal Products Manufacturing (32419), of the Petroleum and Coal Products Manufacturing industry use more hazardous substances and/or generate larger volumes of

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<sup>27</sup> *Petroleum and Coal Products Manufacturing Industry Practices and Environmental Characterization.*

<sup>28</sup> EPA 310-R-95-013 Refinery Sector notebook.

<sup>29</sup> According to the 2017 Hazardous Waste Report, facilities in this sector reported the generation of 5.6 million tons of hazardous waste. <https://rcrapublic.epa.gov/rcrainfoweb/action/modules/br/naics>.

hazardous waste than the Asphalt Paving, Roofing and Saturated Material Manufacturing (32412), which uses and generates smaller amounts of hazardous substances or wastes. Further information on industry practices is provided in the background document for this section, which is available in the docket for this rulemaking.<sup>30</sup>

Sites contaminated by the industry typically contain a wide variety of contaminants, including but not limited to toxic organics, such as benzene, polychlorinated biphenyls (PCBs), phenol, and volatile organic hydrocarbons (VOCs); and heavy metals, such as barium, cadmium, chromium, copper, lead, selenium, and zinc. Other substances beyond those listed here may also have been released. In terms of sources of contamination, improper landfill/land disposal issues, as well as contaminated soils resulting from process activities, have been the most common sources at contaminated sites. Other examples of sources of contamination included abandoned units/materials and improper wastewater management.

As outlined in the ANPRM, because refineries tend to be operated for decades, there is a long timeframe for potential releases and exposure of hazardous substances to occur. In addition, because of their need for large amounts of cooling water for operations, refineries tend to be located near navigable waterways or on the seashore, which likely increases the potential to impact groundwater, surface water, aquatic biota, and aquatic vegetation. Other impacts to terrestrial vegetation, wetlands, wildlife, soils, air, cultural resources, and humans that use these resources recreationally or for subsistence also are likely.<sup>31</sup>

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<sup>30</sup> *Petroleum and Coal Products Manufacturing Industry Practices and Environmental Characterization.*

<sup>31</sup> 75 FR 826 (Jan. 6, 2010).

Contamination of soils from the petroleum refining processes is generally less significant relative to the contamination of water resources<sup>32</sup>. While soil contamination can occur from leaks or spills of spent catalysts or coke dust, tank bottoms, or sludges from the treatment processes, many of the residuals produced during the refining processes are typically recycled through other stages in the process, or collected and disposed of in landfills. Or they may be recovered by other facilities.

Potential impacts to human health and the environment may include large spills that not only contaminate soil and water but may also cause devastating explosions and fires. The consequences and associated releases from refinery accidents can be significant. To ensure immediate responses and to prevent or reduce the likelihood of such incidents, the industry is subject to several Federal regulations and enforcement oversight under various statutes, as discussed in Sections VII.B. and VII.D. below.

### *C. Industry Economic Profile*

Economic trends and financial health in industrial sectors and their associated firms can ultimately affect the ability of individual firms to responsibly address their environmental liabilities. Circumstances in which firms face financial stress can potentially contribute to the abandonment of facilities and the creation of orphan waste sites requiring cleanup. To consider the potential for firms to default on their financial obligations, EPA prepared a high-level economic profile of the Petroleum and Coal Products Manufacturing industry, which includes a summary of relevant financial metrics, industry default statistics and trends, and a broad discussion outlining environmental liabilities under Chapter 11 of the Bankruptcy Code. This

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<sup>32</sup> [https://cfpub.epa.gov/ncer\\_abstracts/index.cfm/fuseaction/display.files/fileID/14522](https://cfpub.epa.gov/ncer_abstracts/index.cfm/fuseaction/display.files/fileID/14522)

analysis, summarized in this section, looked at the industry as a whole and additionally focused on two subsectors individually, providing an industry profile, evaluation of the potential universe of regulated entities, and discussion of the subsector's financial health and relative volatility. The full analysis is found in the background document for this section and is available in the docket for this rulemaking.<sup>33</sup>

Generally, this analysis found the sector to be in a relatively stable financial position with low default risk. Firms in the industry maintain healthy credit scores and reasonable levels of debt relative to assets. The report did note that despite a generally healthy financial outlook, intrinsic market volatility due to exogenous factors (e.g., geopolitical unrest) and supply and demand shocks poses an ongoing threat to stability. The report also notes that firms generally remain liable for environmental compliance obligations under Chapter 11 debt restructuring. Sections 101(5) and 1141(d) of the Bankruptcy Code only provide for a discharge of monetary rights to payment and not for compliance obligations where the Federal government has not sought the payment of money. This may serve to temper the impact to the Fund of potential future volatility.

## **VII. Discussion of Cleanup Sites Analysis**

### *A. Cleanup Site Evaluations*

As described in the Approach to Developing the Proposed Rule, Section V above, to evaluate the need for financial responsibility regulations in the Petroleum and Coal Products Manufacturing industry, EPA sought examples of pollution that occurred under a modern regulatory framework and that required a taxpayer-funded CERCLA cleanup. In its evaluation,

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<sup>33</sup> *CERCLA 108(b) Economic Sector Profile: Petroleum and Coal Products Manufacturing Industry.*

EPA focused first on identifying response actions at Superfund National Priorities List (NPL) sites and sites using the Superfund Alternative Approach (SAA),<sup>34</sup> as those are generally larger cleanups both in terms of amounts of contaminants removed and in terms of costs to carry out these cleanups. EPA also looked at Superfund removals at non-NPL sites.

To identify the relevant cleanup cases in the Petroleum and Coal Products Manufacturing industry, EPA included the NPL sites already identified in the 2010 ANPRM,<sup>35</sup> and supplemented the dataset with additional NPL sites that had been identified since the ANPRM, sites using the SAA, and non-NPL removal sites identified in EPA's Superfund Enterprise Management System (SEMS) database. EPA collected information on the timing and nature of releases or threatened releases at these sites. Specifically, EPA sought to identify, as applicable, facility operation end dates, release dates, sources of contamination, NPL proposal dates, contaminated media, type of contaminant, cleanup lead, and information on Superfund expenditures at the site, as well as other information. For this collection, EPA relied on information previously collected as part of the ANPRM, information available in Superfund site documents (e.g. NPL listing narratives, Records of Decision, Action Memos, Five-Year Reviews) and information in EPA's SEMS, as of March 2018. The cleanup case identification and site information collection processes are described in greater detail in the relevant background documents, which are available in the docket for this rulemaking.<sup>36</sup>

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<sup>34</sup> The Superfund Alternative Approach (SAA) uses the same CERCLA authority and investigation and cleanup process and standards that are used for NPL sites. The threshold criteria for using the SAA are: 1) the site must have contamination significant enough to make it eligible for listing on the NPL; 2) the site is anticipated to need remedial action; and, 3) there must be a cooperative, viable, capable PRP that will sign a CERCLA agreement with EPA to perform the necessary cleanup.

<sup>35</sup> 75 Fed Reg 816 (Jan.6, 2010).

<sup>36</sup> *Identification and Evaluation of CERCLA 108(b) National Priorities List (NPL) and Superfund Alternative Approach (SAA) Cleanup Case Sites Associated with the Petroleum and Coal Products Manufacturing Industry* and

After compiling information about the risks and history of each site, EPA sought to identify instances in which releases occurred under the modern regulatory framework that resulted in Fund-financed response actions. To do so, EPA's methodology applied sequenced screens to the identified sites. EPA first screened out any NPL sites or sites using the SAA where the contaminant release or cleanup activity occurred before 1980. EPA chose 1980 as the cutoff point to initially screen out legacy contamination because it was the year when CERCLA was enacted, as well as the date of the initial regulations under RCRA Subtitle C governing the generation, treatment, storage, and disposal of hazardous waste. EPA chose to give these significant RCRA and CERCLA milestones the greatest consideration due to the large number of issues of waste management, land disposal and soil contamination identified in the review of the NPL and SAA cases. EPA believes the 1980 cutoff date is a conservative screen (*i.e.*, retains more sites in the analysis) in that only the initial RCRA regulations were in place in 1980 and they were refined, expanded and enhanced several times over the next decades. Moreover, the Agency's enforcement authorities expanded in the 1980s as the RCRA program matured. Notably, the passage of the Hazardous and Solid Waste Amendments (HSWA) in 1984 resulted in many regulatory changes and enhanced enforcement mechanisms. More specifically, HSWA created the Land Disposal Restrictions (LDR) program, codified in 40 CFR part 268, which prohibits the land disposal of untreated hazardous wastes. HSWA also substantially expanded corrective action authorities for both permitted RCRA treatment, storage and disposal (TSD)

facilities and facilities operating under interim status,<sup>37</sup> requiring facilities to address the release of hazardous wastes and demonstrate financial responsibility for completing the required corrective actions, further reducing the risks that sites would have to be addressed under CERCLA. For further detail on these requirements, see section VII. B below.

Next, EPA sought to remove from the analysis sites where significant Fund expenditures had not occurred, because response actions that were paid for by private parties do not support the need for CERCLA Section 108(b) financial responsibility regulations. Using the “Action Lead” field in SEMS associated with each site, EPA screened out the potentially responsible party (PRP) lead sites. This left only the Mixed Lead Construction or Government Performed Construction sites in the analysis, under the assumption that PRP Performed Construction<sup>38</sup> sites did not present significant expenses to the Fund.

EPA then reviewed the remaining sites (*i.e.* those with both pollution dates of 1980 or later and Mixed Lead Construction or Government Performed Construction designation in SEMS) individually in greater detail. Specifically, EPA considered the site history and each of the contamination sources at the site in the context of the regulations that would be applicable to that facility today. More information on the regulations EPA considered is available in Section VII.B.

Findings from EPA’s analysis of the cleanup cases are discussed below, with more detailed information in background documents, which are available in the docket for this

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<sup>37</sup> Interim status facilities are facilities that were in existence on the effective date of the regulations and subject to the requirement to have a RCRA permit. The standards for interim status facilities are not as stringent as those for permitted facilities.

<sup>38</sup> These terms are used in the SEMS database to identify the party that had primary responsibility for construction at the sites.

rulemaking.<sup>39</sup> These background documents provide the list of sites identified and remaining at each stage of the analysis, as well as the information considered in the screening and review process.

Using the data sources described above for the Petroleum and Coal Products Manufacturing industry, EPA identified 34 NPL or SAA sites, as well as 51 non-NPL CERCLA removal action sites<sup>40</sup> to evaluate according to the methodology described above. As described further below, none of the contamination at NPL sites or sites using the SAA were ultimately considered incidents that occurred under the modern regulatory framework where significant taxpayer funds were relied upon. For the removal sites, one of the 51 cases showed releases of hazardous substances under a modern regulatory framework and required taxpayer expenditures, as described below.

The 34 NPL and SAA sites evaluated include 23 petroleum refineries, nine coke production facilities, and two sites with oil re-refining and/or fuel blending operations. At these 34 sites, improper land disposal was the most prevalent issue.

EPA applied the screens described above to remove any PRP-Performed Construction sites, as well as any sites where the pollution occurred pre-1980, to the 34 NPL and SAA sites. Eight sites remained after those screens that were either Government Performed Construction or Mixed Lead Construction (i.e., a combination of Government and PRP) sites and had at least one source of pollution that arose in 1980 or later. To assess those eight sites, EPA conducted a more

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<sup>39</sup> *Identification and Evaluation of National Priorities List (NPL) Sites and sites using the Superfund Alternative Approach (SAA) Cleanup Cases in the Petroleum and Coal Products Manufacturing Industry and Identification and Evaluation of CERCLA 108(b) Petroleum and Coal Products Manufacturing non-National Priorities List (NPL) Removal Sites.*

<sup>40</sup> None of the 51 removal sites are associated with an NPL site. Removal actions that have taken place at NPL sites or sites using the SAA, either before or after listing or designation, are tracked in SEMS as NPL or SAA level actions and not as separate removal records.

detailed review to compare the environmental issues (e.g., contamination) at the sites against the regulations applicable today. Based on the detailed review, EPA concluded that the pollution at six of the eight Petroleum and Coal Products Manufacturing NPL sites reflect legacy practices. That is to say that while the sites had at least one source of pollution that arose in 1980 or later, the detailed review of the sites' histories concluded that, for six of the eight sites, the pollution arose before the RCRA Subtitle C program was fully in place.

Several of the sites had long operational histories pre-1980 that contributed to a portion, if not all, of the pollution. Additionally, at most of the sites it was evident that pollution arose prior to HSWA's implementation. This is relevant because four of these sites had land disposal issues, five of these sites had soil contamination resulting from process activities, and four of these sites had abandoned hazardous substances at their sites. These sites pre-dated the enactment of expanded generator regulations, enhanced land disposal unit technical standards, enhanced enforcement provisions (including facility-wide corrective action), Land Disposal Restrictions, and the Loss of Interim Status deadlines for compliance with groundwater monitoring and financial assurance requirements at land disposal facilities, and other protections afforded by HSWA that would have mitigated these issues. Please see Appendix 4 of the background document for an explanation of how the contamination at these six sites would now be addressed by regulations in place today.<sup>41</sup>

Regarding the other two of the eight NPL sites that remained after the screens, EPA's detailed review indicated that these sites may have had releases under the modern regulatory framework. Both sites had legacy land disposal issues, due primarily to improper disposal of

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<sup>41</sup> *Identification and Evaluation of National Priorities List (NPL) Sites and Sites using the Superfund Alternative Approach (SAA) in the Petroleum and Coal Products Manufacturing Industry.*

hazardous waste, which contributed significantly to the site's requiring a CERCLA action. However, as detailed below, notwithstanding a designation of mixed or government lead in SEMS, neither of these two sites required a level of taxpayer expenditures high enough to warrant imposing financial responsibility on the whole industry.

The sites, Indian Refinery – Texaco Lawrenceville in Illinois and Koch Refining Co. in Minnesota, had Superfund expenditures to date of \$720,511 and \$26,659 (2017 USD), respectively. At the Indian Refinery – Texaco Lawrenceville site, which operated from 1907 to 1995, various owners or operators performed cleanup work at the site starting as early as 1983. EPA's primary involvement at the site was oversight of two short-term cleanups, or removal actions, prior to the site's listing on the NPL in 2000. Issues at the site primarily stemmed from a waste disposal area where highly acidic refinery wastes (e.g., lube oil filter clay sludge; acid sludge; and spent filter clays) were improperly disposed. Waste at the site also migrated offsite, requiring cleanup.

At the Koch Refining Co. site, Koch Refining, a Potentially Responsible Party, signed a consent agreement with the State of Minnesota for cleanup of the facility under RCRA authority in 1985. Issues at the site included persistent seepages from ponds, lagoons, and waste piles identified in 1972 as well as leaks, spills, and discharges from active and inactive wastewater lagoons, process areas, internal pipelines, and waste treatment areas identified in investigations conducted between 1986 and 1988. In 1995, EPA deleted the site from the National Priorities List, and determined that no further action under the Superfund law was needed. The refinery at the site is still in operation. The results of the NPL and SAA sites analysis is presented in Table 1, below.

TABLE 1- EVALUATION RESULTS FOR NPL AND SAA SITES IN THE PETROLEUM AND COAL PRODUCTS MANUFACTURING INDUSTRY.

Total NAICS 324 NPL & SAA sites evaluated	Number of NAICS 324 NPL & SAA sites screened out based on pre-1980, or PRP lead status	Detailed review concluded release occurred prior to the modern regulatory framework	Detailed review identified a possible modern regulation release but no significant taxpayer expenditures	Cases with release(s) under modern regulation that required taxpayer funded response
34	26	6	2	0

Additionally, EPA looked at the removal cases found in the SEMS database to supplement this analysis. For this sector, EPA identified 51 non-NPL removal sites. Applying the same methodology as above, EPA screened out 30 sites because the environmental releases occurred before 1980 or PRPs led the response action. EPA also excluded an additional 12 sites that were deemed outside the scope of this rulemaking because the industrial activities that resulted in release of hazardous substances were neither petroleum refining nor coal products manufacturing. Four other sites were left out of the analysis because of insufficient documentation to fully conduct the evaluation (i.e., not enough to verify whether the sites included pollution attributable to a NAICS 324 facility, or the nature/date of the releases at the site).

To assess the five sites that remained after those screens, EPA first conducted a detailed review of case files to compare the environmental issues at the sites to the regulations applicable today. At two of the five removal sites (United Energy in Evanston, Indiana, and Browns Island Emergency Response in Weirton, West Virginia), while the environmental releases had occurred

recently, EPA concluded that they had resulted from legacy waste management practices. For instance, at the United Energy site, the refinery operations ceased during the 1970s and the site was abandoned. Though long abandoned, the presence of former tars pits and waste oil lagoons, PCB stained soil, and PCB oils tanks at the site posed threats to public health and the environment, resulting in EPA's removal response in 2012; total Fund expenditure reported at this site was \$583,000<sup>42</sup>. Similarly, at the Browns Island site, although operations at the former coke by-product plant ceased in 1982, a release occurred in March 2008 when 300 gallons of liquid organic chemicals (primarily naphthalene) that had been stored in an abandoned tank leaked during demolition work. The current owner reported the spill to the National Response Center (NRC) and subsequently conducted the cleanup activity with EPA's oversight; total Fund expenditure reported at this site was \$6,700.

At two other sites (St. Rose Air Assessment Site in St. Charles Parish, Louisiana, and Benicia Valero Refinery in Benicia, California), EPA concluded that the releases were caused by a one-time incident (malfunctioning of sulfur removal equipment at the former and power outage at the latter) which resulted in release of air pollutants (e.g., sulfur dioxide, other organic vapors)<sup>43,44</sup>. Although not designated as PRP-lead actions in the SEMS database, according to EPA's review of site documents, the PRPs largely financed and performed the response actions with oversight of EPA and state agencies. SEMS expenditure data show EPA incurred \$75,000 in Fund expenditures to conduct an air quality monitoring and assessment at the St. Rose site,

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<sup>42</sup> 2012 Action Memorandum – Request for Approval and Funding for Removal Action at the United Energy Site, Spencer County, Evanston, Indiana.

<sup>43</sup> 2017 Pollution Report for Benicia Valero Refinery Site.

<sup>44</sup> 2014 and 2015 Pollution Reports for St. Rosa Air Assessment.

after the state requested assistance from EPA. No Fund expenditures were reported at the Benicia site.

The remaining removal site was Lake Charles NRG, located in Lake Charles, Louisiana. Petroleum refinery operations occurred at this site from 1983 to 1999. The refinery operations consisted of processing petroleum feedstocks into naphtha, fuel oil, and residual fuel oil. Rebel Energy, Inc. constructed the site and began intermittent operation in 1983. Following several ownership changes and bankruptcies, the site was transferred to NRG in 1998. NRG operated the facility for a short time during 1999 and subsequently abandoned it. Site assessment beginning in 2000 identified hundreds of storage systems (including above-ground tanks, sludge boxes, vessels, and drums) and process equipment containing over 200,000 gallons of hazardous liquids, solid sludge, and liquid acid.<sup>45</sup> A subsequent visit by EPA also revealed a tank that had failed, and oil was leaking from the secondary containment structures.

EPA concludes this site represents a case in which a release or threatened release of hazardous substances took place under the modern regulatory framework and required taxpayer-funded cleanup. As described in more detail in the Role of Federal and State Programs section below, the primary regulations governing Above Ground Storage Tanks (ASTs) used for storing oil and petroleum products are the Spill Prevention, Control, and Countermeasure (SPCC) regulations, 40 CFR 112. These regulations have been in place since 1990. Tank systems used to store hazardous waste have also been regulated under RCRA (40 CFR parts 264 and 265) since 1986.<sup>46</sup> Moreover, according to EPA's records, no financially viable PRPs were identified for

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<sup>45</sup> 2012 Pollution Report for Lake Charles NRG site.

<sup>46</sup> 51 FR 25472 (Jul. 14, 1986).

this site, and SEMS expenditure data show that EPA incurred an estimated cost of \$2.3 million for response and enforcement activities.

More detailed information can be found in the background document<sup>47</sup> and supporting spreadsheets, which are available in the docket for this rulemaking. The background document includes the list of sites identified for analysis, as well as the data and information considered in the screening and review process. Table 2 presents the summarized results of the analysis.

TABLE 2 - EVALUATION RESULTS FOR SUPERFUND REMOVAL SITES IN THE PETROLEUM REFINERY AND COKE PRODUCTS MANUFACTURING INDUSTRY

Total NAICS 324 superfund removal cases evaluated	Number of NAICS 324 superfund removal cases screened out based on pre- 1980, or PRP lead status	Detailed review concluded release occurred prior to the modern regulatory framework	Detailed review identified a possible modern regulation release, but no significant taxpayer expenditures	Cases with release(s) under modern regulation that required taxpayer-funded response
51	30(16) <sup>48</sup>	2	2	1

Petroleum Exclusion

In identifying and reviewing cleanup cases in the Petroleum and Coal Products Manufacturing industry, EPA was mindful of the CERCLA petroleum exclusion. CERCLA Section 101 excludes petroleum, or any fraction thereof, from the statutory definition of a hazardous substance unless it is listed or designated as a hazardous substance under certain other

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<sup>47</sup> *Identification and Evaluation of CERCLA 108(b) Petroleum and Coal Products Manufacturing non-National Priorities List (NPL) Removal Sites.*

<sup>48</sup> The number in parentheses indicates the sites that were also removed at this stage in the analysis: 12 sites for which EPA determined the industrial activities did not involve either petroleum refining or coal products manufacturing, and four sites for which there was not enough documentation to be included in the analysis.

environmental laws, including RCRA. As a result, some releases of “petroleum” are not subject to CERCLA liability or response authority.

Notwithstanding the exclusion, EPA’s review of the cleanup sites that had petroleum or coal product manufacturing operations identified numerous instances in which CERCLA responses were taken. Many of these instances pertained to sites where RCRA hazardous wastes had been mishandled; these releases were not excluded by the petroleum exclusion. In reviewing releases at Petroleum and Coal Products Manufacturing sites, EPA was careful to exclude from its analysis petroleum releases at sites where CERCLA authority was used to address other releases. EPA encountered only one release at an NPL site where the petroleum exclusion brought the release’s relevance to our analysis in question. At this site, the Falcon Refinery site, the release occurred from a crude oil storage facility that had been operating over a decade after the refinery closed. As such, the release was determined to have occurred at a facility which is outside the scope of NAICS 324 and would better be classified as NAICS 424710 – Petroleum Bulk Stations and Terminals. Thus, that specific release was excluded from the analysis on those grounds.

#### Prevalent Sources of Releases

EPA’s analysis of cleanup cases compiled information, where discernable, on the root cause of releases. Across the industry overall, the most prevalent issues were soil and surface water and groundwater contamination from unlined or leaking storage tanks, drums, surface impoundments, and surface water lagoons, and uncontrolled polluted stormwater runoff. Additionally, at NPL sites using the SAA, and non-NPL removal sites, abandoned units (e.g., tank farms, drums) containing hazardous substances and soil contamination resulting from

process activities were prevalent sources of contamination. As discussed in the next section, there are regulations in place that address these types of releases.

*B. Role of Federal and State Programs and Voluntary Protective Industry Practices at Facilities in the Petroleum and Coal Products Manufacturing Industry*

In the 2010 ANPRM, EPA recognized that the NPL data reflects releases arising from activity that, in some cases, predates CERCLA, RCRA, and other modern environmental requirements. The Agency welcomed information about current releases of hazardous substances to the environment to help inform EPA's future actions. As discussed in the Approach section of this proposal, to enable EPA to base its decision on risk posed by facilities operating under modern conditions, *i.e.*, the types of facilities to which financial responsibility requirements would apply, EPA developed an approach to identify and consider relevant state and Federal regulatory requirements and financial responsibility requirements that currently apply to operating facilities, as well as voluntary protective practices. EPA thus undertook an effort to gather information about Federal and state environmental programs and industry voluntary programs that have been implemented and are applicable to currently operating facilities within the Petroleum and Coal Products Manufacturing industry today. EPA evaluated the extent to which activities that contributed to the risk associated with the production, transportation, treatment, storage, or disposal of hazardous substances are now regulated. EPA recognizes that substantial advances have been made in the development of manufacturing, pollution control, and waste management practices, as well as the implementation of Federal and state regulatory programs to prevent and address releases at these facilities. In part, EPA's proposed decision to not issue financial responsibility requirements for this industry is based on EPA's review and analysis of Federal regulations and complemented by state program regulations. EPA's proposed

findings and conclusions about the impact of Federal and state environmental programs, along with industry voluntary programs, are discussed in the following section.

#### Overview of Federal and State Regulatory Programs and Industry Voluntary Practices

##### Applicable to Facilities in the Petroleum and Coal Products Manufacturing Industry

EPA evaluated Federal and state regulations that address the potential for release of hazardous substances to the range of environmental media that may be affected by a release from a facility in the Petroleum and Coal Products Manufacturing industry. EPA found that a comprehensive regulatory framework has developed since the enactment of CERCLA. Federal statutes such as the CAA, CWA, TSCA, RCRA, and the Emergency Planning and Community Right-to-Know Act (EPCRA) are applicable across the entire industry and lay the foundation for this regulatory framework. Specific regulations are discussed in the background document according to the affected media that the regulations address: air pollution, water pollution, emergency planning and response, hazardous substances management, and hazardous and non-hazardous waste management and disposal. This background document is located in the docket for this rulemaking.<sup>49</sup>

#### Regulations Addressing Prevalent Sources of Releases Identified in Analysis of Cleanup Cases

EPA's analysis of the cleanup cases found that the most prevalent releases involved:

- Surface and ground water contamination from unlined or leaking storage tanks, drums, surface impoundments, and surface water lagoons, and uncontrolled polluted stormwater runoff;

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<sup>49</sup> *Summary Report: Federal and State Environmental Regulations and Industry Voluntary Programs in Place to Address CERCLA Hazardous Substances at Petroleum Refineries and Other Petroleum and Coal Products Manufacturing Facilities.*

- Abandonment and disposal of contaminated soil and debris;
- Improper storage of hazardous waste; and
- Soil and water contamination from spills and hazardous substance management practices.

The comprehensive regulations for the management and disposal of hazardous waste, promulgated under the authority of RCRA, were designed to prevent these types of releases and assure that past spills are cleaned up by facility owners and operators. Specifically, Subtitle C of RCRA required EPA to establish a hazardous waste management program, and EPA developed a “cradle to grave” approach to control the generation, transportation, treatment, storage, and disposal of hazardous waste.<sup>50</sup> EPA’s regulatory approach under RCRA includes standards specific to types of hazardous wastes, types of hazardous waste disposal facilities, and types of hazardous waste disposal activities; EPA enforces these standards through permitting, reporting and inspection programs.<sup>51</sup>

In 1980, under the authority of RCRA Subtitle C, EPA promulgated the initial hazardous waste management and permitting regulations. These regulations included the identification of hazardous wastes that would be regulated under RCRA Subtitle C. Under Subtitle C, generators of hazardous waste are required to ensure and fully document that the hazardous waste they produce is properly identified, managed, tracked, and treated prior to recycling or disposal. The degree of regulation to which each generator is subject depends to a large extent on how much waste each generator produces every calendar month. Early in the development of the RCRA

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<sup>50</sup> “EPA History: Resource Conservation and Recovery Act,” EPA, at: <https://www.epa.gov/history/epa-history-resource-conservation-and-recovery-act>.

<sup>51</sup> “EPA History: Resource Conservation and Recovery Act,” EPA, at: <https://www.epa.gov/history/epa-history-resource-conservation-and-recovery-act>; “Summary of the Resource Conservation and Recovery Act,” EPA, at: <https://www.epa.gov/laws-regulations/summary-resource-conservation-and-recovery-act>.

program, EPA recognized that a relatively small number of industrial facilities generated the majority of the nation's hazardous waste. EPA initially focused on these large quantity generators, i.e., those that generate 1,000 kilograms or more of non-acute hazardous waste per month (or more than 1 kilogram of acute hazardous waste per month). These facilities must obtain an EPA identification number and report the quantities and types of hazardous waste they generate, as well as the intended receiving facility for treatment and disposal, unless the waste will be managed onsite. Large quantity generators who send their waste offsite are responsible for the proper packaging and labeling of the waste before transport and the tracking of the waste to the destination facility using the uniform hazardous waste manifest. Large quantity generators may store their waste on site for less than 90 days before transport to a treatment and disposal facility; that storage is subject to the same unit-specific standards (described below) applicable to treatment, storage, and disposal facilities.

RCRA Subtitle C also established standards for hazardous waste treatment, storage, and disposal facilities (TSDFs). Operators that handle or manifest hazardous waste at any point in its lifecycle, including generators and transporters, are required to notify EPA of these activities. To keep track, TSDF owners and operators must keep records and make reports to EPA. TSDFs are required to track hazardous waste they receive through EPA's hazardous waste manifest system, among other recordkeeping and reporting standards.

RCRA Subtitle C regulations created a permitting program for hazardous waste TSDFs. The TSDF permitting regulations include application procedures, permit approval conditions, and monitoring and reporting requirements. TSDFs must have permits for the entirety of the active life of the permitted units, including during closure of waste management units. New and existing hazardous waste TSDFs must submit a RCRA permit application at least 180 days

before the commencement of construction and/or hazardous waste management activities.<sup>52</sup> Both permitted and interim status TSDFs must comply with general facility operating standards, preparedness and prevention, contingency plans and emergency procedures, as well as specific technical standards designed to insure that hazardous waste management units such as storage tanks and containers, landfill, surface impoundments, waste piles, land treatment of hazardous waste, and solid waste management units are operated in a manner that prevents releases. To minimize the potential for leachate to threaten human health and the environment, EPA developed design and operating standards that use a combination of different technologies and good operating practices to detect, contain, and clean up any leaks that might occur. To prevent releases of hazardous waste into the environment, containers holding liquid hazardous wastes at a permitted TSDF must have a secondary containment system. Secondary containment is emergency short-term storage designed to hold leaks from hazardous waste management units.

Slightly later in the 1980s, EPA promulgated regulations that set financial assurance requirements for TSDFs.<sup>53</sup> The TSDF standards eventually included air emission standards for process vents, equipment leaks, tank systems, surface impoundments, and containers. The regulations covering proper management of surface impoundments, found in 40 CFR parts 264 and 265, Subpart K, require facilities that store hazardous waste in surface impoundments to meet specific design requirements, which include a double liner system, leachate collection and removal systems, and a leak detection system. The regulations for containers, found in 40 CFR parts 264 and 265, Subpart I, include provisions regarding design and operating requirements,

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<sup>52</sup> 45 FR 33063 (May 19, 1980).

<sup>53</sup> 45 FR 33063 (May 19, 1980); 47 FR 15047 (Apr. 7, 1982).

and inspections. Certain 40 CFR part 265 standards also apply to hazardous waste containers at generator sites.

HSWA was enacted in 1984, largely in response to citizen concerns that existing methods of hazardous waste disposal, particularly land disposal, were not safe. With HSWA, Congress sought to minimize waste generation and phase out land disposal of hazardous waste. Accordingly, in 1986, EPA promulgated a suite of regulations that established standards and restrictions for land disposal of hazardous waste. While the regulations set stringent guidelines for the land disposal of hazardous waste, some hazardous wastes and some types of land disposal are prohibited altogether. Although there are exceptions, operators are generally prohibited from diluting hazardous waste as a substitute for treatment. In addition, operators can land dispose hazardous waste only following treatment and only in appropriate land treatment units, landfills and surface impoundments, Further, operators must meet testing, removal, recordkeeping, and design requirements. Additional standards, restrictions, and prohibitions are in place for hazardous waste that exhibited ignitability, corrosivity, reactivity, or toxicity.<sup>54</sup>

HSWA required that all landfills and surface impoundments install groundwater monitoring, comply with technical requirements, such as double liners and leachate collection, and obtain financial assurance. The HSWA amendments also added to RCRA's regulations for small quantity generators, facilities that generated between 100 to 1,000 kilograms per month of hazardous waste, which were previously exempt from RCRA rules. These small quantity generator rules took effect in 1986. Generators of less than 100 kilograms per month of hazardous waste (i.e., conditionally-exempt small quantity generators) remained subject to

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<sup>54</sup> 51 FR 40572 (Nov. 7, 1986).

significantly reduced requirements.<sup>55</sup> EPA amended the hazardous waste generator provisions in 2016, largely to clarify the requirements.<sup>56</sup>

HSWA also established closure and post-closure requirements for hazardous waste TSDF facilities. The regulations require facilities to develop closure plans for all hazardous waste management units. All TSDFs are required to prepare and submit written closure plans. A permitted facility submits this plan as part of its permit application. Once the plan is approved by the permitting agency, it becomes part of the facility's operating permit. Interim status facilities<sup>57</sup> must have written closure plans within six months of becoming subject to the closure regulations. Upon the completion of closure of a hazardous waste disposal unit, owners and operators must submit a certification of closure to the relevant state or EPA regional office. Following closure, facilities must implement a post-closure plan that abides by post-closure property use and care guidelines. The standard post-closure care period is 30 years, but this can be shortened or extended on a case-by-case basis by the permitting authority (i.e., the EPA Region or the authorized state regulatory agency). Post-closure notification and security requirements remain in place so long as hazardous waste is present at the facility, even after the 30-year post-closure period.<sup>58</sup>

HSWA provided EPA with authority to develop a broader corrective action program. Under this program, EPA requires owners and operators of facilities that treat, store or dispose of hazardous waste to investigate and clean up hazardous releases into soil, groundwater, surface

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<sup>55</sup> Id.

<sup>56</sup> 81 FR 85732 (Nov. 28, 2016).

<sup>57</sup> Interim status facilities are facilities that were already in existence at the time of the enactment of the permitting regulations. Interim status facilities must comply with the requirements in 40 CFR part 265 until they receive their permit.

<sup>58</sup> 51 FR 16444 (May 2, 1986).

water and air, thus reducing the likelihood that these facilities would require cleanup under Superfund. RCRA permits issued to TSDFs must include provisions for both corrective action and financial assurance to cover the costs of implementing those cleanup measures. EPA also possesses additional authorities to order corrective action through enforcement orders, which are not contingent upon a facility's permit. In addition, facilities may voluntarily choose to clean up their contamination.

EPA issued regulations under RCRA Subtitle C that were specific to the Petroleum and Coal Products Manufacturing industry in 1980, 1990, and 1998. In 1980, EPA classified the following waste from the petroleum refining industry as RCRA hazardous waste: dissolved air flotation float; slop oil emulsion solids; heat exchanger bundle cleaning sludge; separator sludge; and leaded tank bottoms. In 1990, EPA classified the following as RCRA hazardous waste: petroleum refinery primary oil/water/solids separation sludge; and petroleum refinery secondary (emulsified) oil/water/solids separation sludge.

The 1998 regulations categorized four wastes generated during petroleum refining operations as hazardous wastes subject to full Subtitle C regulation, while opting not to categorize an additional ten petroleum refining wastes as hazardous. The wastes that the 1998 rule classified as hazardous wastes under RCRA were: crude oil storage tank sediment from petroleum refining operations; clarified slurry oil storage tank sediment and/or in-line filter/separation solids from petroleum refining operations; spent hydrotreating catalyst from petroleum refining operations, including guard beds used to desulfurize feeds to other catalytic units; and spent hydrorefining catalyst from petroleum refining operations, including guard beds used to desulfurize feeds to other catalytic units. The rule also changed RCRA regulations to exclude certain oil-bearing residuals from the definition of solid waste – such as oil and oil-

bearing residuals that petroleum refineries insert into the refining process and spent caustic from liquid treating operations that are used in chemical production operations – in order to promote the recycling of those materials.<sup>59</sup>

In addition to Subtitle C requirements, RCRA Subtitle D established a program for management and disposal of non-hazardous industrial and municipal solid waste through state solid waste management plans that conform with Federal guidelines. And RCRA Subtitle I requires EPA to promulgate technical standards and corrective action requirements for owners and operators of underground storage tanks (USTs), including underground storage tanks that contain hazardous substances or petroleum products. The UST regulations include requirements for design, installation, notification, operational procedures, release reporting, release response and corrective action procedures for underground storage tank systems that contain petroleum or hazardous substances. The regulations also include financial responsibility requirements for underground storage tank owners and operators. In addition, EPA has established guidelines for the approval of state underground storage tank programs.<sup>60</sup>

In addition to the regulatory scheme that RCRA imposes on the management of hazardous waste in underground storage tanks that store petroleum products and chemicals, petroleum refineries and coal products manufacturing facilities are subject to a number of additional regulatory provisions that reduce the potential for a Federally-financed response action. Catastrophic releases of hazardous substances and the use of toxic chemicals and other hazardous substances are additional environmental and safety concerns for petroleum refineries and coal products manufacturing facilities. Several environmental laws authorize regulations

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<sup>59</sup> 63 FR 42110 (Aug. 6, 1998).

<sup>60</sup> 53 FR 37082 and 43322 (Nov. 27, 2018).

requiring the development of response plans for various emergencies in order to reduce the effects of a release, and to notify local emergency response personnel and facilitate cooperation. For example, EPA implements the Chemical Accident Prevention Provisions of Section 112(r) of the Clean Air Act Amendments, which require certain facilities to generate Risk Management Plans (RMPs) to mitigate the effects of a chemical accident and coordinate with local response personnel. Emergency Action Plan (EAP) regulations under the Occupational Safety and Health Act (OSHA) require that employers prepare a written EAP to create practices to follow during workplace emergencies. EPA implements regulations under the EPCRA that impose emergency planning, reporting, and notification requirements for hazardous and toxic chemicals.

Contamination of surface water is largely addressed by the Clean Water Act. The CWA established the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), which sets a blueprint for responding to oil spills and hazardous substance releases. At its inception in 1968, the NCP provided a comprehensive Federal system of accident reporting, spill containment, and cleanup of oil spills. In 1972, the CWA expanded it to include hazardous substance releases.<sup>61</sup>

The 1990, Oil Pollution Act amended the CWA and authorized regulations requiring facility owners or operators to prepare response plans for worst-case scenario oil discharges. In addition, the Oil Pollution Prevention Regulations require facilities that store or use certain amounts of oil and oil products to develop SPCC Plans to prevent the discharge of oil to

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<sup>61</sup> “National Oil and Hazardous Substances Pollution Contingency Plan (NCP) Overview,” at: <https://www.epa.gov/emergency-response/national-oil-and-hazardous-substances-pollution-contingency-plan-ncp-overview>.

navigable waters in case of a spill. EPA finalized the full suite of amendments to the Oil Pollution Prevention Regulation in 2002.<sup>62</sup>

### State Regulatory Programs

Some states impose requirements on the Petroleum and Coal Products Manufacturing industry in addition to requirements related to Federal programs. These stricter or additional standards for emissions, spill prevention, emergency preparedness, and hazardous substance management on facilities that handle toxic or hazardous chemicals can reduce risk at facilities that manage hazardous substances. EPA researched state environmental regulations relevant to the Petroleum and Coal Products Manufacturing industry for a representative sample of states. A discussion of these state regulations, as well as the methodology EPA used in selecting the 11 states that it researched, is in a background document, which is available in the docket for this rulemaking.<sup>63</sup>

States with significant oil and gas refining and manufacturing industries have implemented state regulations applicable to facilities that store or use oil and oil-related materials, including petroleum refineries and petroleum and coal product manufacturing facilities. For example, Alaska has established requirements for owners or operators of petroleum production facilities to prevent the discharge of oil; these regulations include financial responsibility provisions for oil terminal facilities. Alaska also established comprehensive

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<sup>62</sup> 40 CFR 112; “Overview of the Spill Prevention, Control, and Countermeasure (SPCC) Regulation,” EPA, at: <https://www.epa.gov/oil-spills-prevention-and-preparedness-regulations/overview-spill-prevention-control-and>.

<sup>63</sup> *Summary Report: Federal and State Environmental Regulations and Industry Voluntary Programs in Place to Address CERCLA Hazardous Substances at Petroleum Refineries and Other Petroleum and Coal Products Manufacturing Facilities.*

workplace safety standards for the petroleum refining industry, including standards for process equipment maintenance, equipment leakage, and breakage.

### Industry Voluntary Practices

EPA reviewed facility RMPs, industry materials, governmental literature, and academic literature to locate voluntary programs that: 1) attempt to address CERCLA hazardous substance management or disposal, and release prevention, mitigation, and response; 2) are relevant to petroleum refineries and coal products manufacturing facilities; and 3) in which petroleum refineries and coal products manufacturing facilities participate. Industry voluntary programs fall into three categories: those sponsored by Federal, state or local governmental agencies; those fostered within industry associations or non-governmental organizations; and those implemented by individual firms. These programs set or publish environmental management and safety standards that facilities may follow to supplement Federal and state requirements with additional standards and may come with a certification from the government agency or industry group that establishes the standards. Voluntary programs may also serve as forums for coordination and collaboration among companies, facilities, and government agencies to develop best practice standards and improve emergency preparedness. EPA's review of available studies found that the industry voluntary programs can be effective at reducing both pollution and the frequency of government enforcement actions. A discussion of industry voluntary practices, as well as the methodology used by EPA, is in a background document, which is available in the docket for this rulemaking.<sup>64</sup>

### *C. Existing State and Federal Financial Responsibility Programs*

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<sup>64</sup> *Id.*

To help inform the level of risk of a Fund-financed response action associated with classes of facilities in the Petroleum and Coal Products Manufacturing industry, EPA reviewed existing state and Federal financial responsibility programs that may be applicable to the industry and that cover a wide range of liabilities, including liabilities for closure, post-closure care, corrective action, third-party personal injury/property damage, and natural resource damages. EPA focused on these types of financial responsibility programs for two reasons. First, these categories of damages, actions, and costs are like those that could be covered by CERCLA Section 108(b) rulemaking, and thus they help inform the need for CERCLA Section 108(b) financial responsibility for this industry. Secondly, the existence of financial responsibility requirements can help create incentives for sound practices, reducing the risk of releases requiring CERCLA response action. EPA also sought to identify state cleanup funds that are at least partially funded by industry (*e.g.*, through a tax on hazardous wastes generated), and that could cover future CERCLA liabilities that may arise at petroleum and coal product manufacturing facilities. EPA's report focused on the 25 states reviewed in EPA's reports on existing state regulatory and voluntary programs (excluding financial responsibility programs) that may be applicable to petroleum and coal product manufacturing facilities.

Finally, EPA reviewed existing financial responsibility requirements in the following Federal programs: (1) RCRA Subtitle C TSDFs; (2) TSCA commercial PCB waste facilities; and (3) EPA Safe Drinking Water Act Underground Injection Control wells. The report is available in the docket for this rulemaking.<sup>65</sup>

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<sup>65</sup> *Review of Existing Financial Responsibility Laws Potentially Applicable to Classes of Facilities in the Petroleum and Coal Products Manufacturing Industry.*

EPA identified a range of existing financial responsibility programs that may be applicable to facilities in the Petroleum and Coal Products Manufacturing industry. The programs include the Federal programs mentioned above, as well as state programs related to:

- Financial responsibility for used oil processing and re-refining facilities,
- Financial responsibility for hazardous waste TSDFs,
- Financial responsibility for underground injection of hazardous wastes,
- Financial responsibility for storage tanks containing hazardous substances,
- Corrective action financial responsibility to address hazardous waste or hazardous constituents,
- Facility remediation financial responsibility associated with transfer in ownership or facility closure, and
- Other authorities to require financial responsibility to assure compliance with orders.

The applicability of these programs will depend on a variety of facility-specific factors, for example, use of a specific piece of equipment (*e.g.*, an underground storage tank that contains regulated substances) or engaging in a specified activity (*e.g.*, a release of a hazardous substance). Furthermore, state financial responsibility programs vary by state and some types of financial responsibility programs exist only in limited subsets of the states reviewed. EPA believes that state and Federal financial responsibility programs help reduce risk of a Fund-financed response action at facilities where they are applicable. While financial responsibility programs vary in structure and function, they may reduce such risk in a myriad of ways. For example, they may help ensure undercapitalized firms do not engage in environmentally risky enterprises, reduce the incentive to abandon properties with extensive contamination, ensure compliance with protective requirements, and incentivize better environmental practices.

#### *D. Compliance and Enforcement History*

To understand the experience of court settlements and judgments, EPA looked at compliance and enforcement in the Petroleum and Coal Products Manufacturing industry. EPA believes that compliance assistance, compliance monitoring, and enforcement are important components of the regulatory framework discussed above. Through inspections, compliance monitoring can identify noncompliance at regulated facilities. Enforcement actions may result in legal instruments that ensure correction of deficiencies to achieve compliance with environmental requirements. Some functions of compliance and enforcement actions are particularly pertinent to the risk determination for rulemaking under CERCLA Section 108(b). First, if noncompliance causes release of a hazardous substances EPA can ensure in negotiated agreements that the responsible party carries out or pays for the cleanup. Second, enforcement actions can result in orders and settlements that compel a responsible party to return to compliance. Third, the prospect of financial penalties that can accompany these enforcement instruments can encourage compliance. All of these functions support the regulatory structure in reducing risk of Fund expenditures.

EPA looked at applicable enforcement authorities as well as historical enforcement and compliance data in the development of this proposal. EPA obtained data from the EPA Enforcement and Compliance History Online (ECHO) system and provides a review of the Federal environmental enforcement settlements and judgments data from FY 1974 through FY 2017.<sup>66</sup> Facilities whose primary NAICS codes indicate Petroleum and Coal Products Manufacturing (NAICS 324) were included in EPA's review. ECHO data show that targeted

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<sup>66</sup> ECHO does not include all of EPA's compliance and enforcement activity because regions are not required to report "informal actions," and it does not consistently capture all state actions.

initiatives and routine review or inspection of facilities resulted in over 2500 enforcement cases in the Petroleum and Coal Products Manufacturing industry from FY 1974 through FY 2017. CAA (53%) and CWA (18%) cases were the most common. There are a smaller number of cases in RCRA (9%), CERCLA (8%), EPCRA (6%), and TSCA (4%). Further description of this review is in the background document, which is available in the docket for this rulemaking.<sup>67</sup>

As noted above, the Risk Management Program under Chemical Accident Prevention Provisions of Section 112(r) of the Clean Air Act Amendments requires certain facilities to generate Risk Management Plans (RMPs) to mitigate the effects of a chemical accident and coordinate with local response personnel. Assuring compliance with this program has been a priority of EPA's Office of Enforcement and Compliance Assurance since 2017.

Enforcement cases can include instances in which removal action, release reduction, or return to compliance include the removal of contaminated media by the responsible party. Measures to remove contamination may be required in enforcement orders under the range of environmental statutes and are negotiated to require activities aligned with return to compliance.<sup>68</sup> In this situation, enforcement action directly reduces risks to human health and the environment. During the period FY 2011 through FY 2016, 14 settled Petroleum and Coal Products Manufacturing industry enforcement cases were flagged in ECHO as involving removal of contaminated media. They are primarily CWA (8 of the 14) cases. One Clean Air Act, two RCRA and three CERCLA cases are also included.

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<sup>67</sup> *Enforcement, Court Settlements and Judgments in the Petroleum and Coal Products Manufacturing Industry.*

<sup>68</sup> These ECHO enforcement removals are separate from the Superfund removals analyzed elsewhere. ECHO system data includes the combined value of total enforcement financial penalties, Supplemental Environmental Projects (SEPs), and associated compliance activity.

The substances removed included metals, hydrocarbons, asbestos, and hazardous chemicals. These cleanups resulting from Federal enforcement actions mitigated risks to human health and the environment, removing contaminated soils, groundwater and a variety of hazardous substances, and reduced likelihood of impact to the Fund.

Settlements and judgments in enforcement cases can result in financial penalties, supplemental environmental projects (SEPs), and activities required to return to compliance.<sup>69</sup> Enforcement settlements and judgments can ensure that the responsible party conducts or pays for cleanup, drive a return to compliance, and incentivize compliance.

As stated in the cleanup site evaluations in Section VII.A, particular consideration was given to CERCLA and RCRA regulations that had relevant components which apply to the Petroleum and Coal Products Manufacturing industry. There have been over 400 CERCLA and RCRA enforcement cases in this industry, beginning in 1981. For context, there are approximately 2,167 establishments currently operating in the industry. The ten largest CERCLA or RCRA enforcement settlements and judgments for the Petroleum and Coal Products Manufacturing industry each have 2017 inflation-adjusted total values ranging from over \$13 million to \$72 million. Further discussion of the details on the Federal actions for these and additional criminal cases can be found in the background document for this section and is available in the docket for this rulemaking.<sup>70</sup> This document lists facilities where noncompliance was identified and was addressed by means of formal Federal enforcement. The background document does not include facilities where noncompliance was addressed through informal

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<sup>69</sup> Compliance actions ordered can include the removal of contaminated media, installation of new equipment, or implementation of compliant processes.

<sup>70</sup> *Enforcement, Court Settlements and Judgments in the Petroleum and Coal Products Manufacturing Industry.*

enforcement or facilities where noncompliance was addressed by a state. In addition, it does not include facilities where noncompliance was not identified, either because those facilities were not inspected or because they were inspected and found in compliance.

The compliance and enforcement actions documented here and in the background document show that where noncompliance is identified, the preponderance of industry responsible parties are conducting or paying for cleanups, returning to compliance, and improving public health and the environment. Although enforcement actions alone do not completely supplant the need for Fund-financed response actions in the Petroleum and Coal Products Manufacturing industry (as discussed in section VIII, below), effective criminal, civil and judicial enforcement demonstrates proper functioning of this component of the modern regulatory framework. Enforcement thus serves as a complementary element supporting the overall conclusion that CERCLA Section 108(b) financial assurance is not necessary.

### **VIII. Decision to Not Propose Requirements**

Based on consideration of the analyses described in the previous sections, EPA has reached a conclusion that the degree and duration of risk posed by the Petroleum and Coal Products Manufacturing industry does not warrant financial responsibility requirements under CERCLA Section 108(b) and thus is proposing to not issue such requirements. The analysis and proposed finding in this proposal are not applicable to and do not affect, limit, or restrict EPA's authority (1) to take a response action or enforcement action under CERCLA at any facility in the Petroleum and Coal Products Manufacturing industry, including any currently operating facilities or those described in this proposal and in the background documents for this proposal, and (2) to include requirements for financial responsibility as part of such response action. The set of facts in the rulemaking record related to the individual facilities discussed in this proposed

rulemaking supports the Agency's proposal not to issue financial responsibility requirements under Section 108(b) for this class, but a different set of facts could demonstrate a need for a CERCLA response action at an individual site. This proposed rulemaking also does not affect the Agency's authority under other authorities that may apply to individual facilities, such as the CAA, CWA, RCRA, and TSCA.

EPA believes the evaluation of the Petroleum and Coal Products Manufacturing industry demonstrates significantly reduced risk of a Fund-financed response action at current operations. The reduction in risks due to the requirements of existing regulatory programs and voluntary practices, combined with reduced costs to the taxpayer -- demonstrated by EPA's cleanup case analysis, existing financial responsibility requirements, and enforcement actions -- has reduced the need for Federally-financed response action at facilities in the Petroleum and Coal Products Manufacturing industry. EPA looked at current industry practices, market structure and economic performance of the industry; analyzed cleanup cases for facilities in the industry; and evaluated the extent to which the industry and sources of releases are covered by the modern regulatory framework, the degree to which taxpayers have been called upon to pay for cleanup, and EPA enforcement history in the industry.

As discussed in section VII.A, EPA identified only one cleanup case that occurred under the modern regulatory framework and also entailed some Fund expenditure. Overwhelmingly, however, the industry was found to be practicing responsibly within the current regulatory framework, with just one site indicating a significant impact to the Fund while operating under the modern regulatory framework. For context, there are approximately 2,167 establishments currently operating in the industry. The language in Section 108(b) on determining the degree and duration of risk and on setting the level of financial responsibility confers a significant

amount of discretion on EPA. In the past, some of the risks associated with spills resulted from, or were exacerbated by, cleanups not being undertaken in a timely fashion. However, under the modern regulatory framework, requirements such as the Risk Management Plan under the CAA, the Emergency Action Plan under OSHA, and as RCRA requirements for TSDFs to detect, contain, and clean up any leaks, including facility-wide corrective action, all help to ensure timely responses to releases. In addition to the requirements for facilities to respond to spills in a timely fashion, the public can alert the Federal government to releases by calling the National Response Center (NRC), which is a part of the Federally established National Response System and staffed 24 hours a day by the U.S. Coast Guard. The NRC is the designated Federal point of contact for reporting all oil, chemical, radiological, biological and etiological discharges into the environment, anywhere in the United States and its territories.

Only one site (discussed in detail in Section VII.A) had significant releases or threatened releases of hazardous substances under the modern regulatory framework and required more than minimal taxpayer-funded cleanups. Additionally, none of the at least 20 refineries that have closed since 2000, under the modern regulatory framework, had releases that resulted in a more than minimal burden to the Fund. It is EPA's assessment that the small set of Federally-funded cleanup cases due to recent contamination does not warrant the imposition of costly financial responsibility requirements on the entire Petroleum and Coal Products Manufacturing industry under CERCLA Section 108(b).

EPA acknowledges that regulations do not always prevent releases, and the risk of a release is lessened but never eliminated by existing Federal and state environmental regulations. However, EPA believes that the network of Federal and state regulations creates a comprehensive framework that applies to prevent releases that could result in a need for a Fund-

financed response action. Numerous Federal programs have been established under several environmental statutes since CERCLA was enacted on December 11, 1980. These include programs under RCRA, which requires proper management and disposal of hazardous waste; under TSCA, which regulates the manufacture and sale of chemicals; and under both the CWA and the CAA, which address releases to water and air. In addition to these Federal programs, some states have stricter or additional standards beyond Federal requirements. These Federal and state programs are discussed in detail in Section VII. B and in the background document, which is available in the docket for this rulemaking.<sup>71</sup>

In addition, enforcement settlements and judgments that force return to compliance are important components of the applicable regulatory structure. EPA's analysis of enforcement history shows that enforcement of the applicable regulations provides a lever to monitor compliance, obtain responsible party cleanups, and recover financial penalties. Federal and state regulatory programs, backed up by enforcement and complemented by industry voluntary practices, have improved public health and the environment significantly since CERCLA's initial adoption nearly 40 years ago. EPA believes that within the Petroleum and Coal Products Manufacturing industry, this framework provides effective controls that protect human health and the environment.

Examination of market structures for the Petroleum and Coal Products Manufacturing industry further indicates comparatively low likelihood of default on environmental obligations at the expense of taxpayers and the government by companies in this industry. This economic performance, combined with the low impact to the Fund by facilities with releases that happened

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<sup>71</sup> *Summary Report: Federal and State Environmental Regulations and Industry Voluntary Programs in Place to Address CERCLA Hazardous Substances at Petroleum and Coal Products Manufacturing Facilities.*

under the modern regulatory framework, suggests that the degree of risk to the Fund by this industry does not rise to a level that warrants imposing CERCLA Section 108(b) financial responsibility requirements.

For these reasons, EPA is proposing today to not issue financial responsibility requirements under CERCLA Section 108(b) for this industry.

*A. Solicitation of Public Comment on this Proposal*

EPA solicits comments on all aspects of today's proposal. EPA is specifically interested in receiving comments on several issues and requests the following information:

- Examples of Petroleum and Coal Products Manufacturing industry related response actions for releases which took place under the modern regulatory framework where potentially responsible parties (PRPs) did not lead the response at the facility.
- Examples of Petroleum and Coal Products Manufacturing industry related response actions for releases which took place under the modern regulatory framework where PRPs have not taken financial responsibility for their environmental liabilities.
- Information on state-lead or other Federal agency cleanups or instances of natural resource damages associated with this industry that may supplement the information on cleanups gathered and analyzed for this proposal.
- Information about existing Federal, state, tribal, and local environmental requirements applicable to the Petroleum and Coal Products Manufacturing industry relevant to the prevention of releases of hazardous substances that were not evaluated as part of this proposal.
- Information about financial responsibility requirements applicable to the Petroleum and Coal Products Manufacturing industry that were not evaluated as part of this proposal.

## **IX. Statutory and Executive Order Reviews**

### *A. Executive Order 12866: Regulatory Planning and Review and Executive Order 13563: Improving Regulation and Regulatory Review*

This action is a significant regulatory action that was submitted to the Office of Management and Budget (OMB) for review, because it may raise novel legal or policy issues [3(f)(4)]. Any changes made in response to OMB recommendations have been documented in the docket for this rulemaking. EPA did not prepare an economic analysis for the proposed rule, since this action proposes no regulatory requirements.

### *B. Executive Order 13771: Reducing Regulation and Controlling Regulatory Costs*

This proposed rule is not subject to the requirements of Executive Order 13771 (82 FR 9339, February 3, 2017) because this proposed rule would not result in additional cost.

### *C. Paperwork Reduction Act (PRA)*

This action does not propose an information collection burden under the PRA, because this action does not propose any regulatory requirements.

### *D. Regulatory Flexibility Act (RFA)*

I certify that this action will not have a significant economic impact on a substantial number of small entities under the RFA. This action does not propose any new requirements for small entities.

### *E. Unfunded Mandates Reform Act (UMRA)*

This action does not contain any unfunded mandate as described in UMRA, 2 U.S.C. 1531-1538, and does not significantly or uniquely affect small governments, because this action does not propose any regulatory requirements.

### *F. Executive Order 13132: Federalism*

This action does not have federalism implications. It will not have substantial direct effects on the states, on the relationship between the Federal Government and the states, or on the distribution of power and responsibilities among the various levels of government, since this action proposes no new regulatory requirements.

*G. Executive Order 13175: Consultation and Coordination With Indian Tribal Governments*

This action does not have tribal implications as specified in Executive Order 13175, because this action proposes no regulatory requirements. Thus, Executive Order 13175 does not apply to this action.

*H. Executive Order 13045: Protection of Children From Environmental Health and Safety Risks*

This action is not subject to Executive Order 13045 because it is not economically significant as defined in Executive Order 12866, and because EPA does not believe the environmental health or safety risks addressed by this action present a disproportionate risk to children, since this action proposes no regulatory requirements.

*I. Executive Order 13211: Actions That Significantly Affect Energy Supply, Distribution, or Use*

This action is not a “significant energy action” because it is not likely to have a significant adverse effect on the supply, distribution or use of energy, since this action proposes no regulatory requirements.

*J. National Technology Transfer and Advancement Act*

This rulemaking does not involve technical standards.

*K. Executive Order 12898: Federal Actions To Address Environmental Justice in Minority Populations and Low-Income Populations*

EPA believes that this action is not subject to Executive Order 12898 because it does not establish an environmental health or safety standard, since this action proposes no regulatory requirements.

**List of Subjects in 40 CFR Part 320**

Environmental protection, Financial responsibility, Hazardous substances, Petroleum.

Dated: December 4, 2019.

Andrew R. Wheeler,

Administrator.

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